

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING , BATCH 2020-24 CSE-1

CSD416 Project Phase II

SL NO	TITLE OF THE PROJECT	CATEGORY	RELEVANT POS & PSOs	SDG(s)	JUSTIFICATION FOR SDG MAPPING
1	Stroke Risk Prediction Using Machine Learning	AI / Machine Learning Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being	SDG 3 (Good Health and Well-being): Stroke Risk Prediction Using Machine Learning improves health, safety, diagnosis, or quality of life.
2	Fraud Gaurd-Credit Card Fraud Detection System	Machine Learning / AI Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 16 – Peace, Justice and Strong Institutions, SDG 8 – Decent Work and Economic Growth	SDG 16 (Peace, Justice and Strong Institutions): Fraud Gaurd-Credit Card Fraud Detection System strengthens secure and trustworthy digital systems.
3	Anomaly Detection Using RESNET 50	AI / Deep Learning Based Project	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 9 – Industry, Innovation and Infrastructure	SDG 9 (Industry, Innovation and Infrastructure): Anomaly Detection Using RESNET 50 applies innovative computing technologies to address real-world challenges.
4	Real Time Water Quality Monitoring Using Mland IOT	IoT Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 6 – Clean Water and Sanitation, SDG 3 – Good Health and Well-being	SDG 3 (Good Health and Well-being): Real Time Water Quality Monitoring Using Mland IOT improves health, safety, diagnosis, or quality of life.
5	Publication Management System	Application Based Project	PO1, PO2, PO3, PO5, PO9, PO10, PO11; PSO1, PSO2	SDG 9 – Industry, Innovation and Infrastructure, SDG 4 – Quality Education	SDG 4 (Quality Education): Publication Management System enhances learning or educational accessibility using technology. SDG 9 (Industry, Innovation and Infrastructure): Publication Management System applies innovative computing technologies to address real-world challenges.
6	Malayalam Abstractive Text summarization	AI / Deep Learning Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 4 – Quality Education, SDG 10 – Reduced Inequalities	SDG 4 (Quality Education): Malayalam Abstractive Text summarization enhances learning or educational accessibility using technology. SDG 10 (Reduced Inequalities): Malayalam Abstractive Text summarization promotes inclusion and accessibility.
7	Viewmate Visual Assistant	Computer Vision / AI Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being, SDG 10 – Reduced Inequalities	SDG 3 (Good Health and Well-being): Viewmate Visual Assistant improves health, safety, diagnosis, or quality of life. SDG 10 (Reduced Inequalities): Viewmate Visual Assistant promotes inclusion and accessibility.
8	Underwater Image Enhancement and Object Detection	Computer Vision / AI Based Project	PO1, PO2, PO3, PO4, PO5, PO7, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 14 – Life Below Water, SDG 9 – Industry, Innovation and Infrastructure	SDG 9 (Industry, Innovation and Infrastructure): Underwater Image Enhancement and Object Detection applies innovative computing technologies to address real-world challenges.

9	NFT Marketplace	Application Based Project	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure	SDG 9 (Industry, Innovation and Infrastructure): NFT Marketplace applies innovative computing technologies to address real-world challenges.
10	Sentimental Analysis and Fake Comment Detection on E-Commerce Product	Machine Learning / AI Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 16 – Peace, Justice and Strong Institutions, SDG 12 – Responsible Consumption and Production	SDG 16 (Peace, Justice and Strong Institutions): Sentimental Analysis and Fake Comment Detection on E-Commerce Product strengthens secure and trustworthy digital systems.
11	ShopSync : Unifying Supermarket Systems	Application Based Project	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO11; PSO1, PSO2	SDG 9 – Industry, Innovation and Infrastructure, SDG 8 – Decent Work and Economic Growth	SDG 9 (Industry, Innovation and Infrastructure): ShopSync : Unifying Supermarket Systems applies innovative computing technologies to address real-world challenges.
12	Gamified Intervention for Stress Relief	AI Based Application Project	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being	SDG 3 (Good Health and Well-being): Gamified Intervention for Stress Relief improves health, safety, diagnosis, or quality of life.
13	Disaster Preparedness using UNITY	AI Based Application Project	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 11 – Sustainable Cities and Communities, SDG 13 – Climate Action	SDG 11 (Sustainable Cities and Communities): Disaster Preparedness using UNITY contributes to safer and smarter communities. SDG 13 (Climate Action): Disaster Preparedness using UNITY supports environmental sustainability and climate resilience.
14	Plant Disease Detection Using Convolutional Neural Networks	AI / Deep Learning Based Project	PO1, PO2, PO3, PO4, PO5, PO7, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 2 – Zero Hunger, SDG 15 – Life on Land	SDG 2 (Zero Hunger): Plant Disease Detection Using Convolutional Neural Networks supports food security or sustainable agriculture through its proposed solution.
15	Emergency Patient Monitoring System using IoT	IoT Based Project	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being, SDG 9 – Industry, Innovation and Infrastructure	SDG 3 (Good Health and Well-being): Emergency Patient Monitoring System using IoT improves health, safety, diagnosis, or quality of life. SDG 9 (Industry, Innovation and Infrastructure): Emergency Patient Monitoring System using IoT applies innovative computing technologies to address real-world challenges.
16	Multimode Deepfake Video Detection	AI / Deep Learning Based Project	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO11; PSO1, PSO2, PSO3	SDG 16 – Peace, Justice and Strong Institutions	SDG 16 (Peace, Justice and Strong Institutions): Multimode Deepfake Video Detection strengthens secure and trustworthy digital systems.

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING , BATCH 2020-24 CSE-2

CSD416 Project Phase II

SL NO	TITLE OF THE PROJECT	CATEGORY	RELEVANT POS & PSOs	SDG(s)	JUSTIFICATION FOR SDG MAPPING
1	Smart Irrigation System	IoT / Hardware	PO1, PO2, PO3, PO5, PO7, PO11; PSO1, PSO2	SDG 2 – Zero Hunger; SDG 6 – Clean Water and Sanitation; SDG 12 – Responsible Consumption and Production	SDG 2 – Zero Hunger; SDG 6 – Clean Water and Sanitation; SDG 12 – Responsible Consumption and Production
2	Automated Diagnosis of cardiovascular disease using CCTV and CMR in Women	AI / Computer Vision	PO1, PO2, PO3, PO4, PO5, PO6, PO8; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure	SDG 3 – Good Health and Well-being; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure
3	Leakage Detection and Prediction in water distribution networks	AI / IoT	PO1, PO2, PO3, PO4, PO5, PO7, PO11; PSO1, PSO2, PSO3	SDG 6 – Clean Water and Sanitation; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production	SDG 6 – Clean Water and Sanitation; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production
4	Revolutionizing multi feeded health analysis with YOLO	AI / Computer Vision	PO1, PO2, PO3, PO4, PO5, PO6; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure
5	Disaster Reconnaissance unmanned ground vehicle	Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9; PSO1, PSO2	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action
6	Secure sense- Weapon Detection and Behavioural Analysis System	AI / Computer Vision	PO1, PO2, PO3, PO4, PO5, PO6, PO8; PSO1, PSO2, PSO3	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities
7	Implementation of IOT based street light monitoring system	IoT / Embedded Systems	PO1, PO2, PO3, PO5, PO6, PO7, PO11; PSO1, PSO2	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production

8	Photovoltaic defect detection using thermal images	AI / Computer Vision	PO1, PO2, PO3, PO4, PO5, PO7; PSO1, PSO3	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure
9	Congestion control mechanism in NoC	Hardware	PO1, PO2, PO3, PO4, PO5; PSO1, PSO2	SDG 9 – Industry, Innovation and Infrastructure	SDG 9 – Industry, Innovation and Infrastructure
10	Real time blood glucose prediction using Edge computing and deep learning in IQNT	IoT	PO1, PO2, PO3, PO4, PO5, PO6; PSO1, PSO3	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure
11	Autonomous fixed wing delivery on package dropping drone for medical aid	Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities
12	Drone based crowd management system for ensuring safe pedestrian movement	AI / Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO9; PSO1, PSO2	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities	SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities
13	Agri intelligent : A smart plant disease detector with AI powered chat bot	AI	PO1, PO2, PO3, PO4, PO5, PO6, PO7; PSO1, PSO2, PSO3	SDG 2 – Zero Hunger; SDG 9 – Industry, Innovation and Infrastructure; SDG 12 – Responsible Consumption and Production	SDG 2 – Zero Hunger; SDG 9 – Industry, Innovation and Infrastructure; SDG 12 – Responsible Consumption and Production
14	Intelligent Adaptive traffic control system with efficient emergency vehicle response	AI / IoT	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO11; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities
15	AI generated synthesis Image detection system	AI / Cybersecurity	PO1, PO2, PO4, PO5, PO8; PSO1, PSO2, PSO3	SDG 9 – Industry, Innovation and Infrastructure	SDG 9 – Industry, Innovation and Infrastructure;
16	An IoT based circuit monitoring system for optimal power consumption	IoT / Embedded Systems	PO1, PO2, PO3, PO5, PO7, PO11; PSO1, PSO2	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 12 – Responsible Consumption and Production	SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 12 – Responsible Consumption and Production
17	Edge tracking control based electric wheel chair	Embedded Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO9; PSO1, PSO2, PSO3	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities	SDG 3 – Good Health and Well-being; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities